

DRAGON USER



October 1988

The independent Dragon magazine

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Amateur letters — video service tips — fan club numbers — my De-LOCKer user? — a lost Bridge cartridge — early delivery — corrections and suggestions

News

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People's Chart

This month's top five games and an opportunity to win £25-worth of software

Dragonsoft

Software company new word processor — fifty games clear at the price

Communication

Printer problems are a popular virtual monthly reading question column. Do you have the answers?

Disc Rescue

Part D Acrystics how to rescue information and add it to a corrupted disc by saving to a second disc

Paint Line Graphics

New software demonstrates hidden line removal with a graphics which generates complex landscape graphics

Mission Impossible

Dave D Bony sets out the targets and shows you how to hit the right

Concealing Data

Extensively interviewed homecoding expert as they can't be used without a key. Dave D Bony again demonstrates the principles

News Extra

New entry from Harris Micro Software — anti stat o devices

Mode 24

Two month date underlined. Includes list of new modes — courtesy of Paul Wicks

Quick GLS

A short cut to source for drawing graphics quickly

Arcade Arena

The Playfield as the computer's playground — the only club we have is a map of Copic-Snatch board 1

Dragon Answers

Beats and bits — a loose connection — music from traps — where is the CG register? — random access life saving

Adventure Trial

The secrets of Jargonian unleashed

Competition

Add up letters to make a number and win a copy of Baudouin Dragon

Editorial

Last month's bargain cards have been shipped as if by magic, and dealers with cheap hardware report that it's going fast. We have many questions to answer that we're running a page of Communication this month. New subscriptions are still flowing in, and we get plenty of suggestions as well.

Sometimes we can pull out of the hat the very article which agrees of readers have been requesting, sometimes we can't but we keep trying. We would like to do that round up of games, but we won't publish anything which isn't as a result of a Dragon User — so if you have one entry installed a new printer — get in touch. You may be able to help it!

Do you write? As well as original ideas from contributors, we also receive a pile of suggestions looking for a quick write. Tell me who you are, and what you can do, and I'll send you the next magazine!

If I see something as a page for programming tips, advice, or we want to hear from anyone who thinks their advice is better and more elegant for just more useful than the run of the mill. This means planning and designing as well as coding. The Dragon Can Do, so tell us what it is doing for you.

Telephone number
(All departments)
01-437 4343

Editor
HELEN ARMSTRONG

Production Editor
BARBARA HALEY

Associate Editor
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Editorial Secretary
AMIE MARIE O'DRIVER

Advertisement Manager
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How to submit articles

The quality of the material we put in Dragon User each month will be very good or very poor depending on the quality of the material you submit. You can make your own Dragon. The Dragon computer was a machine to the market with a powerful number of users, but with very poor documentation.

Articles which are submitted to Dragon User are published as received and are about 2000 words long. All submissions should be typed. Please use a good printer and a double space between each line. Programs should be written in a language which is easy to read and be accompanied by a tape of the program.

We cannot guarantee to return every article, but we will try to. So please keep a copy. If you submit a program, please include your name, address and phone number, and a return address.

Letters

Seeing is deleting

I HAVE discovered that the Dragon's **DELETE** mode saves the rest of the text in the cursor position whenever you hit the "I say and get into INPUT mode."

This gives you the flexibility of deleting unwanted characters by giving the left arrow key in place of cursor key characters for **ED**. You simply move the cursor to the first character you wish to erase after the characters to be deleted, then the cursor (INPUT mode) and finally hit the left arrow key until the last character to be retained is reached. This gives you a little control of what you're deleting.

Donny Steiner
Hawthorne 110
W 2000 MDV 66484
Rowley

Line feed switch

My internal was accused by New Line in Dragon Answers August 1988 The Goldmine GPH804 Mark 2 which it has four small switches inside the cover. When the power leaves the factory all four switches are in the OFF position. The third switch controls line feed. And is put in the ON position to obtain line feed. This is equal with on the maker's manual and I kept tried at an advice in DJU July 1983 page 17.

Eric Tones
25 Ashford Road
Baton
Lancs BL2 3DA

FC error found

THERE is not language like using a normal one from one screen and the and loading it to be in other. I was setting up a number (FC) value is 404936 program for use in a machine's code routine on per the technique on page 21 of the March 1988 DJU and four values larger than 28782 as FC since occurs

when using the AND V56 technique after loading the page. For assigned double byte edges that may exceed 32767 the least significant byte of size variable N can be calculated by: $POKE\ PC+1\ N-(INT\ (N/256)*256)$
Signed values -1 to -32768 will suffer a similar fate so: $POKE\ PC+1\ 256+(INT\ (N/256)*256)$
will be needed. Two less the technique I had always used and adopting the shorter AND 255 statement?

Ben G. Avey
31 Wycombe Lane
Woodlands Green
High Wycombe

Ideas for Israel?

I AM the head manager of the Israeli Dragon Users' Club. Our Club at Israel@DCLink are waiting to get a call back but the fact is we don't have a budget for our club. We would like to hear from our Dragon owners who wish to join a club.

Itamar Saguy
Israel 107
Ater Golan 44432
Israel

Helpful sounds

IN THE course of writing some simple Basic programs to clients with mental handicaps, encountering problems with the ability to read characters on screen. By clients who were with able to follow verbal instructions. A solution was found in inserting the beep sounds vertically on the tape directly after the program. I changed the speech with a beep sound. This will be needed is a MOTOR ON AUDIO ON command in the program followed by a reliable pause, provided by the Dragon's built-in timer or a four-second loop. After some experimentation on the length of the loop was adjusted as follows:
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News desk

If you have any new products for the Dragon — software or hardware — ring the News Desk on 01-437 4943

User Group

THE National Dragon Users Group will publish their monthly newsletter Dragon Update in up to 40 24h runs and that the membership is increasing steadily since they formed in 1984 to combat rumours that the Dragon was dead.

The RDUG has members overseas as well as in the UK, and encourages advertisement to its pages. It has articles and reviews Dragon Update prints regular news, practical information about software and hardware and reviews programs. Anyone in the group is

likely to be picked on at any time to do just about anything with a balance sheet to that end cover all Dragon related interests, as that there is something for everyone. The subscription covers only essential such as printing postage, phone calls etc.

Contributors are 15 annually 10 overseas, but Paul Greer (Chairman) & Neilson Flood (Writing Editor) RDUG is usually represented at national SIGS shows so look for them next time.

Disc editing utility

FILECOMS have produced a new utility for editing machine code programs. Scoremaker demonstrates memory to DragonDOS disc format via the SCOREMAKER Source Code Data File which can then be edited into SCOREMAK for subsequent editing and recompiling to a disk file. ScoreMaker D only for loading the disk of the file demonstrates appears in DJ to other disk systems and personal users. This also helps in editing software particularly in changing from cassette to a disc based system where you

get it all available from the Scoremaker with Score Guide and a Master and Block disc format available at 1000 lines. 10000 overlays all available and a complete binary system. This version will work in conjunction with all the DRAGON packages. WILLIAMSON software also has the DRAGON DOS and DRAGON DOS compiler.

Interested enquiries to Peter Collins Ltd 25 Wycombe Lane, Wycombe Green, High Wycombe Bucks HP12 3RD.

Radio Dragon

INTERCOMB Ltd Dragon User Group have advised suppliers of Dragon power supplies and individual components. Says Harry Whitehouse: "There has been a shortage of the original product for some time. As a result we compromised the design and manufacture of a new heavy duty replacement. As a service to the Dragon community we have supported us for the best part of a year but we will not take any more orders that everyone can keep their Dragons in action." The complete power supply costs £38.95 with two years guarantee. For information contact Petercollins at 48 Queen St, Basingstoke, Newbury, Hants.

14324 5949 Tel: 0494 766286. Petercollins also have a service of interest to radio amateurs. Radio Dragon is an electronic magazine which is online for 30 hours a week. Dragon and Randy along with software can download the whole magazine with a 20 minute cheap radio phone call and then save print or paste it into a file. It is a lot of change and does not take paid advertising but will mention news services.

Not Washed

PART of a line is missing from line 599 of last month's Cove. When the missing characters are cut crashed > is complete the crash. The real have not crashed.

Dragon dance

WILLIAMSON the software house which produced Scoremaker and Spitzball last year have three new packages and a format.

Underbungee of Greif is an adventure which begins in a deep pit where a hapless adventurer is trapped in a maze. The game uses upper and lower case not all locations and 16 colours which are better. The price is £2.95.

Qualifier is a ten game competition for one to two players including Angkor Wat, Hangman, Shoutout, Spider etc. The games are designed

to suit people of different abilities and are good for parties during the makers. The price is again £2.95.

Something a little different for the music but accurately transcribed four part harmony from original music by Richard Scott. Japan which can be played through the Dragon using its own sound capabilities and notes through a lot of the user interface. This is a book and can be played on a £2.95 with £2.95 for the book.

Orders and enquiries to Martin Bates, Broomfield College, Mansfield Lane, Pottershead, Great Marnock, Bucks HP8 0GG.

Show releases

BLADY COMPUTER Games have added a final matching game to their memory games (Sun, Boulder, Croucher and Simple) and also a new one to the Dragon Company. Show in Cardiff in October (previously about the show from John Fennell computer London 1989) 1989. And anything else you have finished at the time says John Bates.

Diary also have a new software and non-working Dragon file and which they will be bringing to the show (London November) and Cardiff maybe transform as well.

Knechtel Knews

BEHIND KNECHTEL Software is introducing a new method of payment for their Disk Support Pack (DSP) package. The package is £70 inc postage and packing. Payment can now be made by postal order (Deduction is clearly stated whether it includes cheque and money order). At Standings Post Office please order it should be processed for delivery. Please of direct transfer.

We hope to be getting a

review of DSP soon. When ordering please state which version of DragonDOS you are using and attach your name and address separately to both your order and your postal order.

Order and enquiries to Bernd Knechtel, Amstelhofstrasse 18, 8000 Pirmasens, West Germany.

Even cheaper

PROPS DISTRIBUTORS who last month put a collection of working and non-working Dragon 30s up for sale at their north London warehouse report that the units have been selling well, and that they are slashing the price of the non-working spare parts only units still selling £10 each.

The warehouse is at the Haybridge Estate, Goffs Road, Camden Town, London NW1 for information and phone (credit card) sales phone 071 261 6121.

Dragon date

OWING to the change in distribution, Dragon User and now be delivered in the last week of the month prior to the next date.

News Desk — Page 10

Dragon User People's Chart

DELLING: Reveal the multi-yearing slumps of Being On, wide shouldered Personal Secretaries glide silently between wide-glancing executive desks across wide air planes in advertising camp. In the panel it is sure occupied by J. R. Being J. R. himself born down hard upon a wide table as he performs a file deposited by one of these executives.

Whodunnit, takeover? Who is holding the Wintersoft, anyone? Personal Secretaries?

So? Besides the moon. The latest report has just arrived. Finance has confirmed that Wintersoft may be in a stronger position than we imagined.

Like what?

Well, in Juxtaposition—Secrets at Citi V has topped the Dragon User People's Chart for the third week.

At this point of R. Interest is in half. J. R. is nervous and is jangled still further by Mr. Personal Secretaries and Dornell, who coasts along. Secretaries, get a Dragon. It's a mercy for Mr. Dornell was over an agent center.

You too can win £25 worth of software from Microdeal if you can devise an interestingly witty sentence from the lists of some of them in the list, or you favorite these Dragon software packages. To do this, of course, you have to tell your favored or less, which is the form in your right (or left) and send them to us. It's a gift.

Results September 1986

- 1 Juxtaposition.....(Wintersoft)
- 2 Shock Trooper.....(Microdeal)
- 3 Total Eclipse.....(Eclipse Fenmar)
- 4 Moon Cresta.....(Incentive)
- 5 Syzygy.....(Microdeal)

Chart Eight

Rating for Chart No. 8: Name of game or Product, Date (October 1986) Games not available elsewhere will not be eligible for inclusion, but may be included. The editor's decision is final. Only one entry per list and per month will be allowed.

My top 5: Voting Month 7

1
2
3
4
5

Name

Address

My phrase is

Dragonsoft

New software for review should be sent to Dragonsoft, 10-12 Little New, 1st Street, London WC2H 7TF.

Fifty and out...

Program: Cascade
Supplier: Cascade Games
13 Haydon, Concord, Harrogate, N. Yorks
Price: £9.95

WHEN this cassette came out many years ago, I remember thinking to myself "it can't be? 50 games on one cassette?" Through time though time flowed and games in different view of humanity, I felt like maybe humanity was infinitely good, maybe the cassette has some good in it or it.

A few months later, when I was buying the *Polystyle* cassette.

I rushed home, set up Debye (my computer) and loaded the first game. When I was in, I was in very good. In fact it was written in BASIC and didn't really look very nice. In fact it was awful. But what did I

care. I still had 49 games to go.

I loaded the second game, *Galactic Attack*. It was in BASIC and didn't look very good. In fact it was written in BASIC and didn't look very good. But what did I care. I still had 48 games to go.

Three months later I loaded the last game, *Star Wars*. It was in BASIC and didn't look very good. In fact it was written in BASIC and didn't look very good. But what did I care. I still had 47 games to go.

I was not a happy person. Debye and myself had had a good time loading my really useless games.

All the games were in BASIC, although some were not in Dragon BASIC—some of the games would not run as it was written in BASIC.

No attempt was made to make all the games look as good as they played.

My congratulations to Cascade Software for producing my first or two but my sympathy to games.

Jason Gibson

Justified writer

Program: Electronic Author
Supplier: Southern Computer
Price: £19.95 cassette
£29.95 disk

THIS device is like no other I have ever written. It is written in a nice and better word processor than the old *Telewriter*. You can use *Telewriter* as a word processor. It is just that (and isn't it a little better) Author's better.

The format is like a text window and command window. The first window is at the top of the characters with dependent on user choice, and twenty lines down. The command window is two lines and allows input of the abbreviated commands to control all functions and the manipulation.

The keyboard span down I appear to have better, even and the first even with 64 characters in a line, clear now and (Micro) to read.

Following the B side is a *Conig* program should allow the WP to work with any program, a word list with any *Telewriter*, but it is having trouble trying to get the coming to work. It is a tape based WP but a *Dragon*. Don't worry at all, and a *Delta*. Version of currently in production.

All the usual features *Search* and *replace* functions, *highlight* (black, more, copy, and delete), word count, etc. are very easy to operate. The program also has a *Conig* as an optional *Telewriter* as it has a right justification, made built into it so that it is possible to have your text printed in clear blocks without a jagged right hand margin.

All in all, I feel this word processor is not only for writing, it is also a *Telewriter*. It would be nice to see word wrap incorporated in an option.

Jason Gibson



Disc rescue

Pam D'Arcy rescues good sectors from a corrupted disc

[illegible]

It has only been noted in 101 each single and dual drive as I cannot get out 60 track double ended systems to have

from immediately on the Origin, but optional parameters are built only if the `ORIGIN` single-quoted value is `single/multi` data collection. In order to enter for single data users 20 consecutive values 44 single added first instead of data are read into 44 and 44 single for were decisions that required 10 data changes for a 40 (that single) item up — not much more than BASIC's half and pretty good. First for a BASIC program. The occasion happens. In addition, in reading in BASIC's change of the air of looking up (17) new items, 100 of items (100) at a low

When reporting data errors, no screen saving is included for those without printers. The error reports so displayed are below the of the screen, there being ample time for them to be noted on paper before they disappear. Should there be a large number of errors

Because of the deployment of the new backup software, the back up of [REDACTED] is a one-time action. [REDACTED]

single-sided 80-track systems will recognize these JEDs and as being the guts of the patch program supplied by Dragon Denote. CORTEL this unit will use random bit mass.

A second *CRAC* program characteristic is that it is a total distribution of copies of the data available to be used from the source that drives the facility register files contained in the module of a *BASIC* program. *CRAC* and *CRAC* the program from its hardware after *CRAC* has finished will probably prove a very common feature, rather than providing a number of *CRAC* files on the network. *CRAC* the following line items are as much as possible in an affected *BASIC* program will have been moved.

When initially typing/typing programs concerning automatic error handling log into the ERAC database, it is often a good idea to start off by temporarily REMarking out such lines although it is obviously an essential part of the program once you are happy. This seems to be typed in correctly.

[illegible]

```

400 SOUND $D, 100, 0.0001, 0.0001
410 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
420 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
430 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
440 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
450 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
460 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
470 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
480 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
490 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
500 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
510 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
520 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
530 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
540 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
550 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
560 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
570 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
580 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
590 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
600 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
610 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
620 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
630 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
640 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
650 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
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670 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
680 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
690 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
700 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
710 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
720 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
730 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
740 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
750 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
760 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
770 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
780 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
790 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
800 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
810 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
820 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
830 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
840 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
850 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
860 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
870 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
880 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
890 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
900 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
910 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
920 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
930 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
940 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
950 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
960 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
970 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
980 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1
990 GO-ON-1 IF GO-ON-1 THEN T-T-LIGHTS-ON-1 ELSE FLIGHT-1

```

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1988

Fault Line

Create a landscape with this program by P. Whitaker

BACK IN the February issue of *Dragon* (Vol. 1, issue 1) we wrote an article on Three Commercial Displays for the Dragon. Although it dealt with the magazines intended for the retailers and marginal sales of 20-30 copies, I did not cover the subject of retailers' internal use. As a result, the displays often included logos and typography with mass-produced veneer and were often hard to understand. To drive home this point, I have included a few more examples of displays that we intend to design a way of removing the language of shop through-line from the back of the paper, and thus, retail display. Back is a technique I call "Hollow Line Removal."

Figure 1

FAULT LINE MATCHING is a program which generates realistic landscapes for a flat surface and delivers them in easy-to-use format of Habitat Line Proposal. The program works by generating a number of random fault lines across the face of the landscape, and moving the opposite sides of the fault lines together or down on a fault staircase. After sufficient fault lengths have been developed, a fully realistic landscape is derived. It is a process

removal can be selected later. Presumptive (M) key will return to the main screen while the key of the other keys will continue application processes.

If the landscape has not developed with twenty years the (C) city and you can generate a few more land uses.

Once a landscape has been generated, it can be saved to disk by pressing the **Save** item in the toolbar or a later date by pressing the **LI Key**. When the landscape data is saved, the first piece of data is the size of the array. This is so that the load routine can cope with different sized landscapes. When the data is reloaded the program will know what size of array is needed to use.

The remaining functions all deal with the details of the landscape design. Amongst the (P) key will still be the one that all locations below the baseline level of the landscape. The landscape will be required using position line removal, but this time the job will have come in and the design valleys will have disappeared. The will often make a way or to get a look for the shape of the land. In a way this way planning the (P) key will also reduce the landscape.

VR mode: There's a key (L) to make bigger which will allow for a larger projection. The X and Y arrays are used to store the landscape data, while the Z and VZ arrays are used to store the modified landscape data used when rendering the display.

where h is the height represented by $Y_{i,j}$. The program first reads for the grid size and the number of faults. A fault surface is calculated to fill the grid (256 × 256), and then the surface is interpolated by each of the fault levels. This generated grid is substituted to hold the mean co-ordinates of the faulted wedge, and then co-ordinates are directly output as requested by the program. The well was re-interpolated by the program for specific depths. Each faultline is generated by first defining choosing two points on the surface (e.g. base points (21, 1) and (22, 25) in the figure) and then the acquisition of the faultline (A1 = 21, B1 = 25). Then another couple of support numbers are picked to describe the shape of the line, which will be stored as values (330, 450). The coordinates of the well are then assigned the new values and modify the vertical component of each point a little on the vertical coordinate table of the log file.

The algorithm for a straight line uses the formula $AX + B = Y$. With three cases for X and Y , we can calculate the values of A and B and we solved the equation for the line itself. $Y = f(X)$ ($f(X) = 0.5X + 0.5$) and $X = g(Y)$ ($g(Y) = 2Y - 1$). There are two but two equations, perpendicular to each other, all of the points on the grid surface is now all they fall above or below the line, forming a Y value in the equation, or Y generate a Y value. If that's possible (if the Y value is not on the line), then we have the line. The line is the line. Similarly, it is possible that the coordinate is above the line. In that case, we can discover on which side of the line the point is located, and move it up or down.

[illegible]

Abstract

[illegible][illegible]

Fig. 2. Schematic of fully-paired (a) and semi-paired (b) configurations.



is submitted, the contractor will be required to get these and other printed and electronic documents

where $R_{i,j}$ is the splitting test will be displayed, permits the ability to generate a new landscape. The computer will then assign a new color to the landscape. This can be up to about 30 on a Degaos 32 bit can be higher. I can't believe it's not more. That's the computer will assign it to be more of a landscape. The landscape is drawn on the Macintosh's graphics screen, and is displayed on the Macintosh's screen. The display is updated as the results of a new landscape are calculated. While the landscape is being generated, the display will be in green, but once the final landscape has been drawn, the display will change to white. However, at this stage, the display will still be in the usual window style and will be so throughout. The screen will

Incident rate remained low throughout the study period. The incidence of

If the landscape has developed through a long time, it will either under the sea or above it. Then it can be raised or lowered by pressing the (R) key, another entering the virtual object for the display. When the simulation is finished the programme will return to the menu screen. To close it the new landscape, you will need to press either the (F) or (R) key.

Once you are happy with the landscape, the displays will always by pressing the (J) key. This is currently set to 1 sec. College users will need to change the command from SHG Ad justy now: 1104 to GSAEM AG mod. 20000000.

The program makes use of two sets of arrays (XDI and XDI2D). These are dimensioned at the start of the program, as you will see. Do not worry about this.

7000	DATA	-----	-09	71	25	25	33	50	71	84	20	63	80	73	84	80	70	83
7010	DATA	-----	-80	70	31	12	12	12	12	84	72	88	27	83	80	73	80	12
7020	DATA	-----	-12	12	88	74	34	78	78	88	80	80	80	80	80	80	80	88
7030	DATA	-----	-04	78	78	38	24	07	84	04	87	70	38	88	73	18	88	78
7040	DATA	-----	-88	80	70	80	39	81	88	48	38	19	24	80	39	80	80	80
7050	DATA	-----	-88	80	80	88	88	88	88	88	88	88	88	88	88	88	88	88
7060	DATA	-----	-02	10	80	80	84	88	18	84	18	88	84	81	80	81	31	36
7070	DATA	-----	-24	78	80	74	04	80	74	84	39	88	88	88	88	88	88	88
7080	DATA	-----	-18	88	87	88	88	88	88	80	88	89	34	84	84	84	87	88
7090	DATA	-----	-73	88	27	78	88	84	72	42	87	78	82	74	78	88	74	76
7100	DATA	-----	-88	78	78	82	18	88	78	88	84	85	84	88	81	78	88	87
7110	DATA	-----	-84	38	88	38	12	12	12	34	14	85	70	78	88	76	78	81
7120	DATA	-----	-70	78	88	04	08	80	78	88	87	84	18	88	88	12	12	12
7130	DATA	-----	-14	24	74	74	78	88	18	80	70	80	74	78	82	88	84	85
7140	DATA	-----	-80	78	88	38	18	87	84	38	85	87	84	31	21	84	88	38
7150	DATA	-----	-10	87	84	38	80	87	84	27	88	88	88	88	88	88	88	88
7160	DATA	-----	-87	38	80	71	88	84	49	88	84	46	82	81	88	81	38	88
7170	DATA	-----	-82	82	81	87	84	39	38	88	88	88	88	88	74	88	38	84
7180	DATA	-----	-88	87	18	88	88	88	88	71	82	88	71	88	44	88	88	84
7190	DATA	-----	-02	88	88	88	87	71	21	78	71	28	44	04	83	78	71	88
7200	DATA	-----	-74	28	87	71	23	88	82	81	80	71	23	88	72	81	88	74
7210	DATA	-----	-83	87	72	88	88	72	88	71	82	84	72	82	87	71	74	84
7220	DATA	-----	-38	28	81	82	74	71	42	84	84	83	87	71	42	88	71	84
7230	DATA	-----	-82	33	89	18	88	88	04	80	84	88	88	88	38	88	18	80
7240	DATA	-----	-04	10	84	78	71	88	27	21	80	71	45	18	80	80	84	74
7250	DATA	-----	-71	34	58	80	85	88	71	22	80	84	38	88	18	88	71	34
7260	DATA	-----	-18	80	78	88	46	88	87	84	38	78	71	18	12	88	38	88
7270	DATA	-----	-88	74	71	80	27	81	38	84	48	87	71	88	88	78	47	80
7280	DATA	-----	-78	81	33	40	11	83	78	88	88	88	88	77	88	80	71	81
7290	DATA	-----	-89	12	12	12	12	12	80	84	84	18	80	44	34	80	84	80
7300	DATA	-----	-24	84	40	24	80	82	88	82	88	88	88	88	88	88	88	88
7310	DATA	-----	-88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
7320	DATA	-----	-12	88	70	88	12	78	78	18	18	18	18	82	82	88	38	18
7330	DATA	-----	-24	87	88	83	80	87	40	28	48	34	34	48	87	48	88	34
7340	DATA	-----	-34	84	84	84	84	84	81	30	87	84	84	88	28	28	33	27
7350	DATA	-----	-88	40	84	38	12	28	24	81	27	27	87	84	84	38	87	87
7360	DATA	-----	-28	18	81	18	27	82	28	13	81	88	28	87	50	37	30	48
7370	DATA	-----	-84	28	88	81	81	87	82	82	84	84	87	78	37	37	12	84
7380	DATA	-----	-12	12	12	84	72	81	81	38	24	88	82	82	81	81	28	24
7390	DATA	-----	-88	78	72	81	84	72	88	81	10	28	83	70	72	82	83	82
7400	DATA	-----	-24	82	34	72	82	38	88	88	88	88	88	88	88	88	88	88
7410	DATA	-----	-80	80	88	88	88	88	88	88	88	88	88	88	88	88	88	88
7420	DATA	-----	-18	88	85	84	28	84	72	82	38	88	83	84	88	80	74	84
7430	DATA	-----	-72	81	44	27	88	88	84	72	72	81	84	83	70	70	48	81
7440	DATA	-----	-84	80	87	87	72	82	38	88	88	88	88	88	88	88	88	88
7450	DATA	-----	-74	28	85	88	87	84	84	78	84	74	84	88	12	12	12	12
7460	DATA	-----	-88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
7470	DATA	-----	-88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
7480	DATA	-----	-88	28	83	12	74	73	82	38	43	88	43	87	71	82	84	71
7490	DATA	-----	-88	38	88	31	87	18	88	80	84	88	84	33	28	88	88	88
7500	DATA	-----	-88	82	34	88	84	74	71	28	27	21	10	74	45	17	88	72
7510	DATA	-----	-88	78	71	24	58	80	88	87	35	85	84	38	88	81	84	84
7520	DATA	-----	-71	24	18	88	27	88	88	85	87	84	39	70	71	18	17	88
7530	DATA	-----	-88	78	88	54	88	38	88	84	38	88	18	88	48	84	84	87
7540	DATA	-----	-84	18	88	88	88	84	82	84	88	38	89	80	88	38	88	14
7550	DATA	-----	-88	84	14	47	84	88	88	84	84	82	84	84	88	88	88	14
7560	DATA	-----	-11	88	18	18	80	84	80	84	38	88	88	88	88	88	88	84
7570	DATA	-----	-18	88	28	88	88	88	88	88	88	88	88	88	88	88	88	88
7580	DATA	-----	-78	77	78	44	88	88	84	11	88	88	88	88	88	88	88	88
7590	DATA	-----	-89	12	77	88	88	88	88	88	88	88	88	88	88	88	88	88
7600	DATA	-----	-88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
7610	DATA	-----	-88	88	88	48	88	88	88	88	88	88	88	88	88	88	88	88
7620	DATA	-----	-88	84	81	12	84	73	88	88	87	87	87	82	74	73	88	73
7630	DATA	-----	-84	73	81	81	73	88	88	88	74	81	88	70	82	77	73	73
7640	DATA	-----	-82	28	87	27	82	72	73	81	48	88	72	82	77	73	82	28
7650	DATA	-----	-01	48	48	88	88	88	88	88	88	88	88	88	88	88	88	88
7660	DATA	-----	-87	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
7670	DATA	-----	-88	88	88	12	84	74	38	27	87	87	74	82	74	74	38	39
7680	DATA	-----	-88	74	34	81	72	81	23	88	74	74	34	88	77	81	77	74
7690	DATA	-----	-82	28	87	27	80	74	74	31	48	88	72	81	74	74	32	28

[illegible]

Concealing Data

Dave Abbington shows you how to encode and decode text files

THESE ARE times when computing efforts are necessary or desirable to hold or improve data in recorded form so that its authors and users cannot estimate whether to give some data. For example, on the UNIX operating system, users' passwords are stored in an encoded form so that even if somebody does get into the password file, he will not be able to use them unless he knows the encoding technique and the keyword used. Data encryption methods can be done to prevent the abuse of customer systems.

These are the main methods in coding. These bring in just letters and in some cases the substitution methods work by substituting each character by some other. Polyalphabetic methods by the technique and layered being used. Transposition methods work by changing the order of the characters in the text so that all the characters are the same but is regarded up to conceal the original text. Obviously if a technique uses both substitution and transposition then the code will be very hard to break compared to if just one method is used.

Here I present a program which allows users to evaluate and display test files (based on constraints) using a subordinator that has

The third logical segment adjusts a more advanced version of the PLANTAIN model which was used in the first world war to encode several messages. It is based upon a matrix which contains all the available characters, but without the order dependence a keyword is entered by the user. Thus as the encoded text depends on the keyword, different text will be obtained from different keywords.

The program (see Listing 1) starts by setting up a 7 row by 8 column matrix (then allowing 48 different characters). The characters that are allowed are ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789 ? (comma) " (quote) & (ampersand) A space is entered into a character array.

and repeating characters. For example, the keyword "ONCE UPON A TIME" would analyze **ONCEUPONTIME**. The algorithm into the matrix along with the spaced characters. Here the matrix would be

CHIEF OF
FAMILY
HISTORY
CLUBS
204-557
45 18

[illegible]

This action set-extended expression that if a line has an odd number of characters a space is added at the end of the line. If the two characters being examined are the same (either `aa` or `bb`) to the output, `IF` will be encoded as `1`, if `aa` or `bb` are not the same, `IF` will be encoded as `0`. The same rule applies to characterise the same system except that `aa` is 1 otherwise, just that `AA` is encoded as `0` if `aa` is 1. If they are not the same rule is followed but with the characters that are opposite corners, so that `BB` would be encoded as `0`.

Modeling

We apply the same principle to decoding except that instead of adding 1 to the row or column we take away 1 from it. Remembering to wrap around is necessary. We apply the same rule for characters starting not at the same row or column.

The program works by reading a file into memory (the cassette is decoded as described earlier) processing the file as usual (play, stop, cassette in the magazine or closed door). The user must enter the name of the file and is prompted to prepare the cassette recorder when the file is to be read or saved.

The program has been written in a modular manner and consists of several subprograms which are called from within the main body of the program that allows DOS to DOS. This makes it easy to modify

We make use of a drug class as follow model:

The important subroutines are like one in Intel 8080 to 8086 as they can add, subtract or decode a message depending on the value of the variable EC . It does this by setting AD to 1 if encoding or -1 if decoding. This can be used to calculate the raw or cell area of many cell types.

The other two important subdomains are those called the *padding* or *padding bytes* in the standard, 1040 to 1049, and have a special character from a list of 161 (from 1000 to 1049).

To set up a level to containing a message to be introduced use the programs given in Listing 2. It allows up to 100 lines of text to be entered, and is entered when 100 lines have been input or when a full stop is entered on a line.

As the program reads a keyboard to its code and because you may be wondering which is the best to use `Wait` versus `KeyPressed` such as this is the best way which put to the keyboard and remaining letters in a matrix the most effective way is to have a keyboard which contains as less repeating characters as possible and, however, almost as many characters as possible by Program. This makes it more difficult for the code to be broken. For example the keyboard `QWERTZUIOPASDFGHJKL` is better rather than the keyboard `QWERTZUIOPASDFGHJKL`.

It should be remembered that the same keyword must be used for both encoding and decoding otherwise the same results will be obtained.

The ability to conceal data on a computer by encrypting techniques can be useful when the data being concealed only to be seen by authorized users or when messages which are being transmitted are to be kept secret. This program could easily be modified to encode data stored in a database rather than a text file. It is to be noted that messages sent from individuals to each other could be encrypted and then decrypted by the recipient.

Learning Objectives

[illegible][illegible]

News desk

If you have any new products for the Dragon — software or hardware — ring the News Desk on 01-437 4343



Current sponge

INTEGRITY Software have produced an anti-static bag for microcomputers. This bag which comprises two leads with a dust tight seal, ensuring a static safe bag which is in fact an ideal lead to do much less harm. It also has a built in static sponge and cleaning fluid. This might well be of interest those using expensive computers in a high static job. For more info contact computer equipment like an office. Otherwise ask a protection car

ter improved more cheaply with an modification to an RGB or VDU screen or in packages to a static earth point like a silver resistor.

Recent surveys indicate that some 70% of computers are by now static sensitive and can even destroy a consultant's system that this could hinder the sale. Suppliers for Integrity Software 804 Manchester Road, Baddiley, Rochdale, Lancs OL11 3HD.

Extend the 64

HARTEC Micro Software previously known for disk-based applications programs for the Dragon 64/128/128 is offering BASIC 42 designed solely for the Dragon 64 which the makers claim greatly extends its capabilities.

The program allows on disk for Dragonists (through other formats may be available to disk-based) and makes use of the 64's ability to operate in 64k type 1 with 64k of RAM. The program boots at the time

it is loaded into memory from BASIC. The existing 64k of BASIC and 64k of DOS are retained but modified.

BASIC 42 allows printing on 16 pin dot-matrix standard PRINT commands using on lines of 48 characters per line. Most visible characters are repeated in pairs to a light grey defined window just over the top but can be defined to use some selected video credits in a 16 pin dot-matrix print com-

mands and functions. Both modes at lower class and automatic startup of a BASIC program.

The core program occupies some 48k of memory and allows various commands to be used in from disk is required. Three subroutines are directly written in program that 'patches' the known bugs in Dragonists 10, a print speller which allows the computer to be used with the printer in copying, and a help utility which allows some of the features of BASIC 42 with BASIC 42. It also allows double pause testing, in general TRON (including single stepping) plus rapid scroll and error messages.

HARTEC Micro Software hope to extend the range of utilities to cover video disk, database, graphics, a disk math editor and a series of video sound capabilities. Software packages, databases and software and more. The open ended nature of BASIC 42 means that it is possible to co-

mbine the Dragon's capabilities almost indefinitely.

The price for the core program BASIC 42 including extensive character sets, character changing program and Dragonists patches is £14.95. The HELP utility and the SPOOL utility will add to £3 each. The programs will be available from October 1st.

Micro Show

THE 1985 and West Coast Computer Shows being held at the Park Hotel Cardiff on 15th November from 10 to 6.

We have no news as to whether any of the Dragon suppliers will be in contact but there should be something to interest multi-micro users.

For more information contact Preston Cardington, Kingsway Court, 51 Station Road, Merthyr Tydfil, Glamorgan CF32 5BB. Tel: (0554) 523495.

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```

10 CLE
20 LET A=96 'ASCII code of character to define.
30 DATA 76,112,77,85,112,84,90
40 ' data to define character (see table 1).
50 GOSUB 100 ' call user define routine.
60 PRINT"this is the character":PRINT"you defined: ";CHR$(A)
70 END
80 '
100 'define character
110 IF A<96 OR A>127 THEN PRINT"CHR$( 'A;'" OUT OF RANGE":STOP
115 A=INT(A)
120 AD=PEEK(360)*256+PEEK(361)+696+7*(A-96)
130 FOR N=AD TO AD+5
140 READ D
150 POKE N,D
160 NEXT
170 RETURN

```

```

10 DEF FNP(I)=PEEK(48600+32*I)*16/321-P1
20 'replaces PEEK(48600+P)
30 'lower case characters return code of upper case equivalents
40 '
50 CLE
55 FOR I=0 TO 1
60 FOR N=32 TO 255
70 PRINTN(I*32+I,CHR$(N));
80 PRINT00,USING"###";FNP(N*I*32);
90 FOR S=1 TO 50:NEXT
100 NEXT
110 PRINTCHR$(38);
120 NEXT

```

[illegible]

Listing 4 - Demonstration

```
10 CLS
20 US=CHR$(28)
30 IS=CHR$(29)
40 PRINT"~ Upper and lower case text."
50 PRINT
60 PRINT"~ ";US;"Underlining";IS
70 PRINT
80 PRINT"~ ";IS;"Inverse video";IS
90 PRINT
100 PRINT"~ Special characters: ";CHR$(96);
110 FOR N=123 TO 127:PRINTCHR$(N);:NEXT
120 PRINT:PRINT
130 PRINT"~ And all 8 colours ";
140 FOR N=0 TO 7:PRINTCHR$(143+16*N);:NEXT
150 PRINTCHR$(128)
160 PRINT
```

Table 1 - Poke Numbers for user-defined graphics

00000	96	96	96	96	96	96	96
00001	74	74	74	74	93	92	92
00010	124	105	134	8	128	105	124
00011	0	0	0	0	0	0	0
00100	85	84	84	84	84	84	84
00101	0	0	0	0	0	0	0
00102	0	0	0	115	0	0	0
00111	93	0	0	0	0	0	93
01000	128	104	124	0	124	104	124
01001	0	68	68	68	68	68	0
01010	99	99	114	86	86	99	99
01011	0	0	0	0	0	0	0
01100	112	122	123	123	122	122	112
01101	0	0	0	64	0	0	0
01110	130	94	104	120	100	0	120
01111	0	100	0	121	0	0	0
10000	76	76	76	76	76	76	76
10001	85	85	85	85	85	85	87
10010	0	112	112	112	112	112	0
10011	0	0	0	71	0	101	101
10100	0	102	75	0	75	0	0
10101	0	0	77	77	84	64	0
10110	0	0	0	0	0	0	0
10111	0	0	0	0	0	0	0
11000	0	0	0	108	108	0	0
11001	101	101	0	0	0	0	0
11010	0	0	0	0	0	0	0
11011	0	77	99	0	99	87	0
11100	91	0	0	0	0	0	91
11101	0	0	0	0	0	0	0
11110	66	0	117	49	0	100	66
11111	69	0	122	107	125	0	69

Table 2 - control codes

```
CHR$( 27 ) -
Return to normal
mode mode24) test
screen
CHR$( 28 ) -
Inverse / 1200 video
toggle
CHR$( 29 ) -
Underline on/off
toggle
CHR$( 30 ) -
Green / amber screen
toggle
```

Table 3 - code for FHP)

CHRS	CHRS	normal	Inverse
32	+	98	32
33	[97	33
34	*	98	34
35	#	99	35
36	2	100	36
37	%	101	37
38	^	102	38
39	'	103	39
40	(104	40
41)	105	41
42	*	106	42
43	+	107	43
44	-	108	44
45	=	109	45
46	.	110	46
47	/	111	47
48	0	112	48
49	1	113	49

continued				74	J	84	10	101	a	69	5
				75	K	75	11	102	f	70	6
CHR5 CHR normal Inverse				76	L	76	12	103	g	71	7
50	2	104	50	77	M	77	13	104	h	72	8
51	3	105	51	78	N	78	14	105	i	73	9
52	4	106	52	79	O	79	15	106	j	74	10
53	5	107	53	80	P	80	16	107	k	75	11
54	6	108	54	81	Q	81	17	108	l	76	12
55	7	109	55	82	R	82	18	109	m	77	13
56	8	110	56	83	S	83	19	110	n	78	14
57	9	111	57	84	T	84	20	111	o	79	15
58	e	112	58	85	U	85	21	112	p	80	16
59	r	113	59	86	V	86	22	113	q	81	17
60	c	114	60	87	W	87	23	114	r	82	18
61	=	115	61	88	X	88	24	115	s	83	19
62	>	116	62	89	Y	89	25	116	t	84	20
63	7	117	63	90	Z	90	26	117	u	85	21
64	8	64	8	91	i	91	27	118	v	86	22
65	A	65	1	92	\	92	28	119	w	87	23
66	B	66	2	93		93	29	120	x	88	24
67	C	67	3	94	+	94 <td>30</td> <td>121</td> <th>y</th> <td>89</td> <td>25</td>	30	121	y	89	25
68	D	68	4	95	*	95 <td>31</td> <td>122</td> <th>z</th> <td>90</td> <td>26</td>	31	122	z	90	26
69	E	69	5	96	#	96 <td>0</td> <td>123</td> <th>+</th> <td>91</td> <td>27</td>	0	123	+	91	27
70	F	70	6	97	a	97 <td>1</td> <td>124</td> <th>^</th> <td>92</td> <td>28</td>	1	124	^	92	28
71	G	71	7	98	b	98 <td>2</td> <td>125</td> <th>^</th> <td>93</td> <td>29</td>	2	125	^	93	29
72	H	72	8	99	c	99 <td>3</td> <td>126</td> <th>^</th> <td>94</td> <td>30</td>	3	126	^	94	30
73	I	73	9	100	d	100 <td>4</td> <td>127</td> <th>^</th> <td>95</td> <td>31</td>	4	127	^	95	31

CHR5 CHR normal Inverse				74	J	84	10	101	a	69	5
				75	K	75	11	102	f	70	6
				76	L	76	12	103	g	71	7
50	2	104	50	77	M	77	13	104	h	72	8
51	3	105	51	78	N	78	14	105	i	73	9
52	4	106	52	79	O	79	15	106	j	74	10
53	5	107	53	80	P	80	16	107	k	75	11
54	6	108	54	81	Q	81	17	108	l	76	12
55	7	109	55	82	R	82	18	109	m	77	13
56	8	110	56	83	S	83	19	110	n	78	14
57	9	111	57	84	T	84	20	111	o	79	15
58	e	112	58	85	U	85	21	112	p	80	16
59	r	113	59	86	V	86	22	113	q	81	17
60	c	114	60	87	W	87	23	114	r	82	18
61	=	115	61	88	X	88	24	115	s	83	19
62	>	116	62	89	Y	89	25	116	t	84	20
63	7	117	63	90	Z	90	26	117	u	85	21
64	8	64	8	91	i	91	27	118	v	86	22
65	A	65	1	92	\	92	28	119	w	87	23
66	B	66	2	93		93	29	120	x	88	24
67	C	67	3	94	+	94	30	121	y	89	25
68	D	68	4	95	*	95	31	122	z	90	26
69	E	69	5	96	#	96	0	123	+	91	27
70	F	70	6	97	a	97	1	124	^	92	28
71	G	71	7	98	b	98	2	125	^	93	29
72	H	72	8	99	c	99	3	126	^	94	30
73	I	73	9	100	d	100	4	127	^	95	31

[illegible]

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Quick CLS

A Daniel clears semigraphics the fast way with machine code

THIS LITTLE program is a simple machine code fast method to clear any part of the low or high resolution screens or even the semigraphics screen which can only be cleared very slowly in Basic.

It is really a real life algorithm and no knowledge of machine code is required except as with all machine code programs you must save it before you try it as a typing mistake may cause an irreparable crash.

You do however need to know the memory addresses of the screen locations. To remind you the low resolution screen starts at 1024 and continues through 511 locations to 1023. The High Res screen starts 16384 and ends a sizeable number of pages exceeding some mode (see future) each page containing 1024 locations. The semigraphics screen starts at 1024 and ends at 16383.

The listing below gives a fast running

demonstration of blocks of colour being placed on areas of high res and low res screens or which is multi-stored (not just two has been drawn). The semigraphics 20 screen is then cleared completely and a blue squiggle added to prove that it really is semigraphics! However those you will have read by now that the potential of the real res is enormous.

To use your better instincts if you design your own programs you must give values to 3 variables — S1, S2 and S3 which the REM line 58 is the start address of the area to be cleared and must not be less than 1024. S2 is the end address of the area and S3 the clearing colour. Of course you must also set up the mode and screen for high res graphics or select the appropriate numbers (as in line 260) for semigraphics.

To produce a uniform colour low res or semigraphics you can just enter the normal number 1024 of the colour you require as the variable S3. If high res are numbered

between 2 and 255 will produce a range of colours but only 6 will be uniform, give uniform shades. These are 0 which produces the normal background colour 255, the normal foreground and 85 and 130 which give the two remaining colours. The other two numbers 157 and 208 produce a composite colour which on my television set will pass as a solid 14th shade! When using high res (or if you wish to make patterns on low res) you must define lines 96 and 100 as otherwise the value of S3 will be corrupted.

The machine code codes are contained in a subroutine so the programs proper ends at line 90. You can go from here to wherever you want and a 4096B block of just one BEXEC6000.

If your program then needs a lot of string space include the 2000 in line 10 if you are using other modes from page numbers you may wish to enter the 20000 figure in line 10 or alter the start address in line 90.

```
30 REM INPUT ENTER START POINT, END P
DIM C, COLOUR (0,1,2,3)
40 GOTO1000
50 GOTO2000
60 A=30000
70 IF G=1 THEN 100
80 IF S3=1 THEN S3=1 ELSE S3=S3+5
90 IF S3=158 THEN S3=158: REM THIS LI
NE AND LINE 900 NOT REQUIRED IN HIGH RES
: MODES: VALUES FOR S3 CAN BE FOUND IN L
INE 200
100 S3=S3+10
110 POKER, A+60
120 IF S1=52 AND S1=1023 AND S2=1023 A
ND S1=1023 AND S2=1023 THEN GOTO1000 EL
SE POKER=A+1, 0: REM POKER=A+3, 0: REM
POKER=A+5, 0: REM
130 POKER=A+3, 0: REM
140 POKER=A+1, 0
150 POKER=A+5, 0: REM POKER=A+5, 0: REM
POKER=A+7, 0: REM
160 POKER=A+9, 0: REM POKER=A+11, 0: REM
POKER=A+13, 0: REM
170 RETURN
180 S2=INT(S1/256): S3=S1-S2*256
190 S2=INT(S2/256): S3=S2-S2*256
200 POKER=A+1, S2: POKER=A+3, S2: POKER=A+5, S2
: POKER=A+7, S2
210 RETURN
220 REM THIS IS A DEMONSTRATION ONLY.
** CONSTRUCT YOUR OWN PROGRAMS YOU CAN
```

```
ONLY ALL THE FOLLOWING LINES
230 S4=INT(S1/512): S4=INT(S1/512)-128: S4=S4+
187: S4=S4+256: S4=S4+256
240 S=0: REM C=SCREEN+8, 1, 0, 0
250 GOTO1000
260 BEXEC60000
270 IF S=1 THEN FOR J=1 TO 1000: NEXT
FOR J=3000 TO 6500 STEP 50: POKER=A+175:
NEXT
280 FOR J=1 TO 1000: NEXT
290 IF S=1 THEN S=0: REM FROM 1000, THAT WA
S SEMIGRAPHICS 24, 0 FOR J=1 TO 1000: RE
AT
300 GOTO1000
310 CLS: FOR S=200 TO 320: PRINTS, CHR$
(RND(255)+33): NEXT S
320 S1=1000: S2=1000: S3=RND(15)+1
330 RETURN
340 ANDOS, 1: SCREEN, 0: PLS
350 FOR S4=10 TO 15: CIRCLE(RND(150)+50,
RND(100)+50), RND(40), RND(4): NEXT
360 S1=1000: S2=1000
370 S3=S+125: S2=S+1: IF S2=5 THEN S
=0
380 RETURN
390 POKER=A+7, 0: POKER=A+7, 1: POKER=A+7
: 1
400 FOR J=1 TO 1000: NEXT
410 S1=1024: S2=2073: S3=RND(15)+1
420 RETURN
```

Expert's Arcade Arena

Write to: 'The Expert' at Dragon User
12-13 Little Newport St, London WC2E 9PP
with all your arcade tips and hints

JUST a shortish streamer this month because of its accompanying year for those of you newly acquainted with the term: 'streamer' here's a map of the opening section of *Castle Smash*, together with some VERY helpful advice. To aid and enhance chances of getting past the last that goes up and down **ONLY** THE **RIGHT** GUN needs to be used. They are marked on the Map as 1, 2, and 3 for pretty obvious reasons. But one must be taken care to enable a 100% success rate on level 1 if one should die while trying to take out guns two and three. These are the guns that hold you while trying to get past the up and down lunge? Right! That is the design explained now then, should care to produce a map of the several stages? Plus a few tips on how to get there?

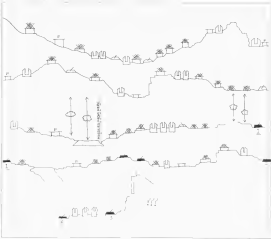
The winner of the 'Who is The Expert?' Competition this month is a cert in Andrew Melchior from Woking in Surrey who suggests that I am a bit of a know-it-all on my Andy wrong, but a nice try, and your phone number here: two abscond and one missing! Firstly, two pieces of totally

different but being the pieces of advice by Kemp away from girls with happy hair! And by Stop watching so much *Monty Python*. And your maternal Prou, with oh you should have received about a month ago is a Photograph, taken by my love for her! (a dump of grass from my back garden. I kinder would let you you've been wondering who sent you that Prou for about a month hasn't you?

Now then some games news (perhaps you producing a game called *Fraser* about which I shall review in more but looks like being very good indeed. Keep reading this column for more news. New release from Microdeal goes looks like being a version of *Boulder Dash* with 26 screens (I think) a moderate choice (is it *Scramble* *Aladdin*) and some excited screens involving some that one looks like a map!

Your letters are still arriving, by the code told, oh yes, and by the way, the *Luminous* pen code is getting beyond a year! This month I have received two letters in Luminous Pen from a Helen Marshall in

Cardiff City. Well, oh Andrew, *Fraser* or *Wiles* (early on the Andrew *Fraser*!) anyway Andrew *Wiles* Day Yellow Pen *Fraser* and Helen *Wiles* (you should read in later... I'll send a copy to the magazine who, no what am I thinking about? First Pen Marshall, I've informed Helen Marshall of your address and so it be found for your conservative party membership like very soon. Not then then. Anyway your letters. A try from one Helen Marshall, London. Do the Expert please provide a map for at the start of *Castle Smash* as I think it would be a great help to many people. — Another thing I've written recently — and also have you get around to map for *Fraser* *Agit* and *Bruck* a *Kingdom* pen? — These I have to you, are you sending? — Please, some help with *Castle* — I'm looking for it. — Finally, I'd like to know your column and that time the part of the magazine I have to find. You should be interested in for more space. Do you write for any other mag or not? — No! — Please keep up the great work! Thank you and goodbye!



If you've got a technical question write to Brian Coyle.
Please do not send a SASE as Brian cannot guarantee to
address individual inquiries.

Dragon Answers

Baud rate

I AM thinking of buying a modem, but want to know if I would need a Dragon 64 as I only have a 32-bit micro. Could you explain baud rate and startup loss when used with modems?

*B. J. Southall
17 Dalrymple Ave
Dumfries
Dumfries*

MOST modems talk to the computer via an RS232C serial interface which is built on to the 64 but not on the 32. Therefore, you either need to get a new Dragon 64 or buy one of the many RS232C cardrings available for your 32. Some companies such as Compuserve and Perletron will sell you an all in one package consisting of modem, RS232C cardring and software ready to run.

The baud rate is the speed at which data is sent down the serial interface. It is actually the number of times the signal line changes state in a second but is often simply referred to as the number of bits sent per second.

Start bits are special bits sent before a byte of data to wake up the computer at the other end and allow it to synchronise to the incoming data stream. Simply insert a gap between bytes of data and we send after a byte of data.

Keyboard

I HAVE a Dragon 32 and my problem is that 3 of the keys do not work. They are the CLEAR, ENTER and SHIFT keys. Can you tell me what's wrong and if there's a remedy?

*G. Hardy
10 Crockett
Middleton
Dorchester
GU8 4PS, Dorset*

YOUR problem is almost certainly caused by a faulty keyboard unit and not by the CPU or other components. The 3 keys you mention (plus the ENTER key which you probably find doesn't work either) are often the same output line from the keyboard



matrix and so are likely to fail together. This means that the keyboard keys are probably fine and there is simply a loose connection between keyboard and interface cable or ribbon cable and CPU board.

Alternatively try contacting one of the repair services listed on the pages of Dragon User for repairs on a new keyboard — you should be able to fit this yourself.

Music

I AM in the process of writing a game on my Dragon 64 and would like to know if it is possible to produce 'background music'. I know this is possible on the Commodore Amiga etc, but they have a different hardware.

*Paul Macdonald
Dunfermline
Moray*

THE DRAGON is certainly not famous for its music-driven sound capabilities, this is due to the fact that unlike almost every other domestic home computer it does not contain a dedicated sound chip. Hence, when the Dragon wants to make a noise the ROM must do all the work and cannot do anything else.

Therefore, it is impossible to produce true interrupt sound. However, one fudge used in some games (like Microdeal's Crazy Painter) is to have a routine which produces very short beeps and call this routine from within the main game loop. You are limited to up beeps thus but the results can be quite effective.

Sequel

THE OTHER day I was playing a game called The Ring of Darkness on a friend's machine. He said he had had the game for a couple of years, so I was interested in buying the game but I can not find where to buy it. Could you tell me who produces the game and where I can get it from?

*Rayn Allgren
27 St Marys Park
Leath
Luton LU11 5ET*

THE RING of Darkness was produced by Winterson who have since released the sequel called Return of the Ring. Both can still be obtained direct from Winterson at 46 Uplands Park Road, Weyfield, Middlesex, priced at £6.95 each.

Stacked

I AM in the process of writing an assembler (in Basic) for my Dragon 32. The program is menu driven and I want a status mode available where the status of the flags register is shown.

The problem is where is the CC stored? My reference manual says it is stored on the stack, but any attempt to put the CC will result in a different answer.

*Marilyn Smith
43 Church Road
Conely
Widrigge*

FOURTH from your problems regarding the CC (condition codes) register that you are actually writing a dis-

assembler rather than an assembler. The CC register is stored in the ROM and is not stored in memory of any physical address. You can access disassembler code by pushing it onto the stack with a PUSH CC command and getting it back into the accumulator with a PULS A command followed by STX to store it in memory.

Of course, the CC is not relevant to a disassembler anyway and would only be relevant to a assembler which would be rather difficult to run in BASIC.

Sorting

I HAVE written a Making Address program for my Dragon with disc driver. It has many functions such as word search and list all addresses of same type etc. The problem I have is with sorting. The only way I know of sorting a file is to load it all into memory, sort it and write it to disc. This limits the number of records to around 200 (although many other people to sort the file without having the keyword).

*Robert Smart
48 Chawston House
Chawston Gardens
Sutton
Surrey*

THE solution to your problem seems to be to use random access files rather than load all the data into memory at once. You'll need to use the READ and PERFORM commands and devote on a third record-length (328 characters) should cover the longest name and address. Then a particular record N will be able to be retrieved into AS string.

RULED: FILENAME, AS
R N = 0-128,
FOR 128, AS

Most sort routines include lines to compare two strings and, if necessary, swap the two strings. All you need to do is read in the correct records from disc before the comparison is made and in addition keep a list of the swapped over (you could use the SWAP command for this).

Adventure Contact

Adventure: Return of The Ring.
Problem: How to load the six
units for the first trip? How to
use the copper ring to clear
money back and white pass?
Name: Philip Collington. **Ad-
dress:** 5-Pinevale Road, Moss
side, London, W14 9PL.

Adventure Williamson 3
Problems. Has anyone got a
map? I need one. Name: Colin
Hills. Address: 31 Lonsdale
Drive, Northwood, Wiltshire
WRO 7HA. Adventure: Various
Facts: Problems I need help
Name: Stuart Flood. Address:
85 Quincey Close, Milton
Merridale, Leicestershire LE15 3JH

Adventure 14 **Chemurgists** 23
Return Of The Ring 30 **Problems**
13 How long out of the nest does
nest work 23 How to get more
parallel work 24 **Hamilton**
Address 10 **For us/Any Form**
Manufacture 10 **10/10**

Adventure OpenworldGames Problem After installing a man called Rhythms it asks you to type in the code. There no idea what the code is, please help me. **Home Support Center Address** is Rhythms Road, Glastonbury, Here is ENTHUS, Adventure, Madness, and the

Miscellaneous Problems: Can't find the microscope, and how to give the light microscope. **Name:** Eddy's Kinship Address: Hagman, 6098 Vesuvius Highway
Advertisements: Just possible Problem: How do you get the English Scientist? Where are the Credits of Robert? Name: Steven Allen Address: 85 Mallon Road Overton Hairy PDZ-0292

Advertises: Can I send the Skill Level Problem: How does it work?

From the first to last, we will be in the resource center. Name: John Campbell. Phone: Address: 12 Street, Street, Houston, Texas, 77001. Mr. Campbell.

Advertisement: 15 Five Centimeters
Indicated 20 1/2 and 1/2 Ounce. **Pro-**
blems: 15 Five Centimeters and the
whole (total) 20 Everything —
can't get started Name: Mrs.
Thomas Address: 45 Parkfield
Road Burlington Co. Durham
NJ 07033
Advertisement: 15 Five Centimeters

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Advertiser: Kings Arms, Inc.
Title: How do you get the most out of the longer gun and how many rounds can it hold in the forest and what are they?
Name: Andrew Cooper
Address: 18 Oldbury St. Windsor, Ont. L9A 4K1
Phone: (519) 253-1111

Adventure Contact

To be included in our survey, simply fill in the coupon below, placing the name of the adventure, your problem and your name and address, and send it to: **Parents Live!**

Admission: 12pence (2010 Little Newport Street, London WC2H 7PP. As soon as enough entries have arrived we will start calling the books in for evaluation.

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Author(s)	Publication	Year	Country	Sample Size	Study Design	Intervention	Comparison	Outcome	Effect Size	Quality of Evidence
Smith et al.	Journal of Clinical Medicine	2018	USA	120	RCT	Hand hygiene	Control	Reduction in infection rates	0.15	High
Johnson et al.	Medical Journal of Australia	2019	Australia	150	RCT	Antibiotic stewardship	Control	Reduction in antibiotic resistance	0.20	High
Chen et al.	British Medical Journal	2020	China	200	RCT	Vaccine	Control	Reduction in disease incidence	0.30	High
Anderson et al.	New England Journal of Medicine	2021	USA	180	RCT	Antibiotic stewardship	Control	Reduction in antibiotic resistance	0.25	High

SHOULD WE MURDER?



- **repress**: *repress* + *repress*
- **repress** can be a **verb** or a **noun**
- **repress** is a **verb**
- **repress** is a **verb**
- **repress** is a **verb**
- **repress** is a **verb**

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Abstract



- **Matrix** maps the **graph**
- **For** a **graph** **graph**
- **For** a **graph** **graph**
- **For** a **graph** **graph**
- **For** a **graph** **graph**

disappears your locomotive working the train and plants, then
attach it to a new one and it's done.

Received 12 November 2003; accepted 12 November 2003

100

[illegible][illegible]

Downloaded At: 11:53 11 September 2009

1973-1974: *Journal of the American Medical Association*, 227: 1000-1001.

GROSVENOR SOFTWARE

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<p>SharePoint 2010 is the latest and greatest version of the Microsoft Office SharePoint Server (MOSS) 2007. It is a major release and includes many new features and improvements. It is a great time to upgrade your SharePoint environment to the latest version.</p> <p>For more information on the new features and improvements in SharePoint 2010, please visit the Microsoft SharePoint website.</p>	<p>SharePoint 2010 is the latest and greatest version of the Microsoft Office SharePoint Server (MOSS) 2007. It is a major release and includes many new features and improvements. It is a great time to upgrade your SharePoint environment to the latest version.</p> <p>For more information on the new features and improvements in SharePoint 2010, please visit the Microsoft SharePoint website.</p>
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J. Neurosci. Clin. Neurophysiol., Suppl. Neurosci. 1987; 6(2): 10-11.

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link to **SALESBOX** or **STOCKBOX**

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